AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on line 7 of page 14 as follows:

Preferably, a heat exchanger 44 withdraws heat from the purified hydrogen stream 39. The heat withdrawn from the purified hydrogen stream 39 is imparted to a combustion supporting gas 45 entering the apparatus 20 by way of inlet 46. The combustion supporting gas 45 illustratively includes air and oxygen. Preferably, the combustion gas 45 is ambient air. Preferably, a fan 48 is provided to actively draw air into the inlet 46. Transferring heat between the purified hydrogen 39 and the combustion gas 45 within the heat exchanger 44 serves to promote maintenance of operating temperature within the reactor 32. The combustion gas 45 is metered to a catalytic burner 50 within the reactor 32 by way of a control valve 52. A computer ~~(not shown)~~ 60 collects input data from pressure sensors 36 and 38 as well as a thermometer 54 monitoring the temperature within the reactor 32. The computer is capable of storing sensor output and modulating the activity of control valves 40 and 52 in order to maintain the apparatus 20 in a status input by a user. Various apparatus control operations include startup, continual operation, input parameter modified continual operation, and shut down. In addition to computer control of various apparatus operational modes, it is appreciated that an inventive apparatus is also operated under manual control or various components are selectively placed under manual control. For instance, controlled pump 26 is optionally under manual control during startup. Control valves 40 and 52 are adjusted to control the flow of feedstock to the boiler 30 using the temperature of the reactor 32 is one measured variable for control thereof. A computer controller according to the present invention turns off the flow of feedstock to the catalytic burner 50 if the reactor 32 has a temperature in excess of a preselected threshold. Preferably, should the temperature within the reactor 32 rapidly exceed a preselected threshold, one has the ability to

shut off the flow of feedstock entering the reactor 32 by way of the boiler 30 and feedstock metered to the catalytic burner 50 by way of control valve 40 while simultaneously increasing the flow of combustion gas 45 by way of control valve 52. With this set of valving operations, the reactor temperature is rapidly decreased to below a preselected threshold. While the reactor 32 is within the normative control range of temperature, optionally, purified hydrogen output 39 is measured by pressure sensor 38 is the sole control over feedstock metering to the reactor 32 by way of the boiler 30. Under steady state operation of the present invention, control of combustion gas 45 entering inlet 46 is maintained with control valve 52 to burn stoichiometrically so as to maintain a preselected oxygen content in the waste gas 56 exiting the apparatus 20. Optionally, an oxygen sensor 58 monitors the waste gas stream 56 for oxygen content information. The sensor 58 is in communication with the computer controller so as to adjust the combustion mixture composition within the catalytic burner 50. By way of example, inventive apparatus operating at 85% efficiency uses 10.7 +/- 0.9 cubic centimeters of air per minute to yield one kilowatt producing amount of purified hydrogen.